

939

U.S. DEPARTMENT OF LABOR
Occupational Safety & Health Administration
MATERIAL SAFETY DATA SHEET

JAN 15 1982

SECTION I			
MANUFACTURER'S NAME E. I. du Pont de Nemours & Co. (Inc.)		EMERGENCY TELEPHONE NO. (302) 774-7500	
ADDRESS (Number, Street, City, State, and ZIP Code) Wilmington, Delaware 19898			
CHEMICAL NAME AND SYNONYMS Hydrochloric acid, muriatic acid		TRADE NAME AND SYNONYMS Hydrochloric Acid 20°	
CHEMICAL FAMILY Mineral Acid		FORMULA HCl	

SECTION II HAZARDOUS INGREDIENTS					
PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Units)
N. A. *					

SECTION III PHYSICAL DATA			
BOILING POINT (°F.)	182	SPECIFIC GRAVITY (H ₂ O = 1)	1.160
VAPOR PRESSURE (mm Hg.)	25	PERCENT VOLATILE BY VOLUME (%)	100
VAPOR DENSITY (AIR = 1)	1.27	EVAPORATION RATE (butyl acetate = 1)	greater than 1
SOLUBILITY IN WATER	complete		
APPEARANCE AND ODOR Clear, colorless to light yellow fuming liquid with a pungent odor			

SECTION IV FIRE AND EXPLOSION HAZARD DATA			
FLASH POINT (Method used) N. A. (non-flammable)	FLAMMABLE LIMITS N. A.	Lel	Uel
EXTINGUISHING MEDIA Water, dry chemical, carbon dioxide, foam			
SPECIAL FIRE FIGHTING PROCEDURES Neutralize with chemically basic substances such as soda ash or slaked lime.			
Wear full protective clothing. Cool tank with water if exposed to fire.			
UNUSUAL FIRE AND EXPLOSION HAZARDS Contact with common metals produces hydrogen gas which may form explosive mixtures with air.			

* not applicable

NOTICE FROM DU PONT

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

5 ppm (maximum allowable concentration according to ACGIH)

EFFECTS OF OVEREXPOSURE

Causes burns. Inhalation of fumes results in coughing and choking sensation.

EMERGENCY AND FIRST AID PROCEDURES

Flush skin or eyes with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. For inhalation, leave contaminated area.

If not breathing apply artificial respiration, oxygen. Call a physician.

SECTION VI REACTIVITY DATA

STABILITY

UNSTABLE

CONDITIONS TO AVOID

STABLE

X

INCOMPATIBILITY (Materials to avoid)

Corrosive to most metals with evolution of hydrogen gas.

HAZARDOUS DECOMPOSITION PRODUCTS

Hydrogen chloride vapors, hydrogen

HAZARDOUS POLYMERIZATION

MAY OCCUR

CONDITIONS TO AVOID

WILL NOT OCCUR

X

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove sources of ignition. Stay upwind of spill. If necessary to enter spill area, wear self contained breathing apparatus and full protective clothing including boots.

WASTE DISPOSAL METHOD

Flush thoroughly with water applied to entire spill. Washings should be neutralized with soda ash or lime before discharging to a sewer.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)

None for normal use

VENTILATION

LOCAL EXHAUST

Maintain adequate ventilation

SPECIAL Maintain acid vapor in air at 10 ppm or less.

MECHANICAL (General)

Unknown

OTHER

PROTECTIVE GLOVES

Long rubber or plastic coated gloves

EYE PROTECTION

Chemical safety goggles or face shield

OTHER PROTECTIVE EQUIPMENT

Rubber gauntlets, rubber apron, rubber boots, hard hat, long sleeve shirt

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Protect against physical damage. Store in cool, open or well-ventilated places, separated from all oxidizing materials. Keep container closed.

OTHER PRECAUTIONS

Wash clothing before re-use. Keep containers out of sun and away from heat. Never use pressure to empty.

A-79859

For more information refer to:

5/72

Du Pont Hydrochloric Acid Bulletin A-76719

Manufacturing Chemists Association SD-39

National Fire Protection Association, Manuals 49, 491 M

American Conference of Governmental Industrial Hygienists

Threshold Limit Values for 1971